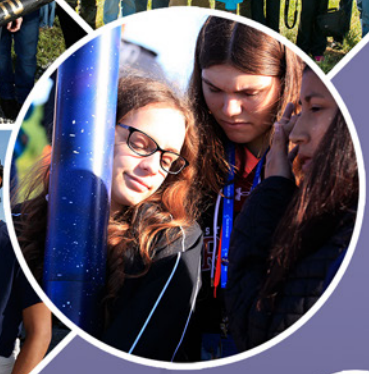
National Aeronautics and Space Administration

2016 NASA SL Student Launch











Rocket Fair

Friday, April 15
11 a.m.–1 p.m.
MSFC Activities Building 4316

Free Pizza!

Launch Day

Saturday, April 16
8 a.m.–till
Bragg Farms, Toney, Alabama

Rain Date

Sunday, April 17
8 a.m.–till
Bragg Farms, Toney, Alabama

Sponsored by NASA's Office of Education, the Human Exploration and Operations Mission Directorate, and **Orbital ATK** in collaboration with **NASA's Centennial Challenge.**

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NASA Student Launch (SL)

Bragg Farms
Launch Day: Saturday, April 16
Opening Ceremonies begin at 8:00 a.m.–till

Rain Date

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Launch Day: Sunday, April 17
Opening Ceremonies begin at 8:00 a.m.–till

Launch is free and open to the public.

What is NASA Student Launch?

The NASA Student Launch (SL) challenges middle school, high school, and college students in designing, building, and launching a reusable rocket to a pre-determined altitude above ground level with one of three scientific or engineering payloads. SL is an 8-month commitment requiring teams to submit a series of reports and reviews, develop a Web site, provide educational engagement in their local community and provide a timeline, a budget, and other requirements. The three payload options are detailed below.

1. Student Launch Initiative (SLI): Middle and High School teams design a scientific or engineering payload, and launch it to an altitude of 1 mile above ground level (AGL).
2. University Student Launch Initiative (USLI): University and college teams choose 2 options from a predetermined list of payloads, and fly them to an altitude of 1 mile AGL. Payload include atmospheric measurements, hazard detection, liquid sloshing, propulsion or aerodynamic analysis, fairing designs, and the option to design your own payload.
3. Centennial Challenge (CC) Mars Ascent Vehicle (MAV): Participating teams design Autonomous Ground Support Equipment (AGSE) to capture a provided payload, contain it within the rocket, elevate the rocket to an angle of 5 deg. off vertical, insert the motor igniter, and launch the rocket to 1 mile AGL. This option is a NASA Centennial Challenge competition. To learn more about Centennial Challenge, please visit their website below.

Is this project a contest?

USLI and MAV: Yes. Each team is competing for various prizes including a grand prize of $5,000 sponsored by Orbital ATK. Additionally, NASA CC will be providing prize money totaling up to $50,000 to the top three teams who successfully completes the MAV competition. The CC award winners will be announced at the awards banquet, and SL award winners will be announced after the final reports are completed.

SLI: No. However, teams competed and placed in the top at the Team America Rocketry Challenge (TARC). As a result, teams were eligible to propose to be a part of this year's SL.

Information can be obtained from the following:

- Student Launch: http://education.msfc.nasa.gov/slp
- Centennial Challenge: http://www.nasa.gov/directorates/spacetech/centennial_challenges/
- Julie Clift at julie.d.clift@nasa.gov
- Ian Bryant (Jacobs ESSSA) at ian.l.bryant@nasa.gov
- Katie Wallace at katie.v.wallace@nasa.gov

Launch day information line: 256–961–1334

Directions to Bragg Farms

1180 Grimwood Road, Toney, Alabama 35773

From MSFC:

1. North on Research Park Blvd. (Hwy 255) to Pulaski Pike.
2. Turn North (left) onto Pulaski Pike.
3. Go 3.6 miles until Pulaski Pike veers to the left.
   Instead of following Pulaski Pike, go straight onto Patterson Lane.
   There will immediately be a sharp right turn.
4. After 0.7 miles, turn left on Murphy Hill Road, which is the first road to the left.
5. Take Murphy Hill Road 1.8 miles to Grimwood Road.
6. Turn East (right) onto Grimwood.
7. Take Grimwood 0.9 miles to Bragg Farms.
   The farm will be on the South side of Grimwood Road.

From Downtown Huntsville:

1. Take Hwy 231/431 North to Grimwood Road. Grimwood road is 5 miles North of Bob Wallace Lane and 0.7 miles North of Meridianville Middle School.
2. Turn West (left) onto Grimwood Road.
3. Go 2.5 miles to Bragg Farms.
   The farm will be on the South side of Grimwood Road.

What to bring:

- Chairs
- Small cooler for lunches and snacks
- A food vendor will be provided at the launch field and accepting cash only
- Sturdy shoes/boots. Depending on weather, the field can be hard and dry, or very muddy
- Insect repellent
- Appropriate weather related items: sunscreen, sunglasses, hat, jacket, raincoat, etc.
- Do NOT bring grills or generators. These will not be permitted on the launch field.

Safety Statement

Please be advised that hazards are inherent in launching and in viewing launches. By accepting the invitation to view the launch, you indicate your understanding of the potential risk.

Although NASA applies stringent range safety principles and techniques to protect the general public, workforce, and property during launch, in the event of an inadvertent circumstance, hazards including debris, blast, and toxins may occur.

It is imperative that you stay within controlled areas, stay with your group, and strictly follow all instructions provided by NASA.

*NASA Student Launch is sponsored by **Orbital ATK** with the annual launch event hosted at **Bragg Farms** in Toney, Alabama. Launch services are provided by the **National Association of Rocketry.***

2015–2016 NASA Student Launch Initiative Teams

Hart County 4H Rocket Club — Munfordville, Kentucky
Ingraham High School — Seattle, Washington
Jordan High School — Durham, North Carolina
Krueger Middle School — San Antonio, Texas
Madison West High School — Madison, Wisconsin
Plantation High School (2 Teams) — Plantation, Florida
Russellville High School — Russellville, Alabama
Spring Grove Area High School (2 Teams) — Spring Grove, Pennsylvania
St. Vincent-St. Mary High School — Akron, Ohio
Sylvania Northview High School — Sylvania, Ohio
Western High — Davie, Florida

2015–2016 NASA University Student Launch Initiative Teams

Alabama A&M University — Normal, Alabama
Auburn University — Auburn, Alabama
Citrus College — Glendora, California
Fisk University — Nashville, Tennessee
Northeastern University — Boston, Massachusetts
Pennsylvania State University — State College, Pennsylvania
Rensselaer Polytechnic Institute — Troy, New York
Tuskegee University — Tuskegee, Alabama
University of Alabama in Huntsville — Huntsville, Alabama
University of Alabama — Tuscaloosa, Alabama
University of California, Davis — Davis, California
University of Cincinnati — Cincinnati, Ohio
University of Florida — Gainesville, Florida
University of Maine — Orono, Maine
University of Massachusetts — Amherst, Massachusetts
University of Notre Dame — Notre Dame, Indiana
University of South Alabama — Mobile, Alabama
University of Toledo — Toledo, Ohio
Vanderbilt University — Nashville, Tennessee

2015–2016 NASA Student Launch Centennial Challenge Teams

California State Polytechnic University, Pomona — Pomona, California
California State University, Long Beach — Long Beach, California
Cornell University — Ithaca, New York
Florida International University — Miami, Florida
Georgia Institute of Technology — Atlanta, Georgia
Iowa State University — Ames, Iowa
Madison West High School — Madison, Wisconsin
North Carolina State University — Raleigh, North Carolina
Northwestern University — Evanston, Illinois
Saint Louis University — St. Louis, Missouri
Tarleton State University — Stephenville, Texas
United States Naval Academy — Annapolis, Maryland
University of Arkansas — Fayetteville, Arkansas
University of Central Florida — Orlando, Florida
University of Illinois at Urbana-Champaign — Champaign, Illinois
University of Iowa — Iowa City, Iowa
University of Louisville — Louisville, Kentucky
University of North Dakota — Grand Forks, North Dakota
University of South Florida — Tampa, Florida

National Aeronautics and Space Administration

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www.nasa.gov/marshall

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